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ABSTRACT

Results from the evaluation of a large-scale educational intervention designed to prevent school disruption suggest that altering the school organization is a more effective approach to delinquency prevention than treating individuals. Data for this comparison came from the evaluation of a school-based delinquency prevention program, Project PATHE, that operated in seven Charleston, South Carolina, public secondary schools between 1980 and 1983. Two other schools are used for comparison purposes. The following steps, taken together, were found to reduce school disruption: involving the school staff, students, and community members in planning and implementing change; using information to identify weaknesses and focusing resources on those weaknesses; retraining school staff; and making changes in the curriculum and discipline procedures in the school. Using roughly the same level of resources to provide what, for a typical school system, is intensive tutoring and counseling services of high quality appears not to have reduced delinquency or its risk factors. Appended are 3 data tables and 11 project reference. (MLF)

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Environmental Change Strategies to Prevent School Disruption

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Environmental Change Strategies to Prevent School Disruption

Today I will compare the effectiveness of primary prevention and individual treatment approaches to the prevention of school disruption. Data for this comparison come from the evaluation of a school-based delinquency prevention program that operated in seven Charleston, South Carolina, public secondary schools between 1980 and 1983. Project PATHE was funded by the Office for Juvenile Justice and Delinquency Prevention (OJJDP) to demonstrate the effectiveness of school-based delinquency prevention programs. The alternative education initiative, which funded seventeen projects in addition to PATHE, is described in G. Gottfredson, 1982 and Gottfredson, Gottfredson, and Cook, 1983. Interim evaluations of project PATHE are reported in D. Gottfredson, 1982, 1983a, and 1983b.

Project PATHE allows a comparison of the effectiveness of individual treatment vs. organizational change approaches to reducing school disruption because the project used both approaches. It was designed to alter the school management and governance procedures, but it also recognized that some students were so deficient in basic academic and social skills that they required intensive treatment before they could benefit from the school-wide innovations. Program resources were split approximately equally between the

Environmental change organizational change and individual treatment components of the program.

Program Description

Organizational Changes

The elements of the program are described in detail elsewhere (D. Gottfredson, 1983b). I will provide only a general description of the program today. PATHE sought to establish and maintain a structure to facilitate shared decision making among community agencies, students, teachers, school administrators, and parents in the management of its schools. The project established teams composed of representatives from these groups and trained the team members to plan and implement school change. The Project managers established clear performance expectations for the team members by requiring written plans for school improvement projects, communicating standards for the quality of the plans, and establishing time-lines for the completion of school improvement projects. The project managers carefully monitored the activities of the teams and provided assistance when necessary. This high caliber of management characterized all components of the program. Each school improvement team (there were five in each school) completed between one and three major school improvement projects each school year.

A second major influence on the organization and management of the schools was the policy review and revision component of the project. Teachers and administrators worked together to review and revise the curriculum and discipline policies and practices in each school. The project trained staff to use information from achievement tests and discipline records to identify and define the schools' problems, and it provided needed resources identified by the staff. Some of the products resulting from this review and revision included curriculum guides, resource rooms for use by students and faculty, inservice training for school staff, and a uniform discipline system.

Other school-wide changes involved specific innovation aimed at improving student academic, affective and career outcomes. PATHE implemented study-skills, test-taking skills, and reading experience programs in its schools, trained teachers in effective instructional technologies, and provided funds for cultural, academic, and career-related field trips. Innovations aimed at improving school climate included a "School Pride Campaign," which involved teachers and students in activities to improve the overall image of the schools, expanded extracurricular activities, and peer counseling or "rap sessions" to promote constructive discussions of topics of concern to students. Finally, the program offered several activities in conjunction with local universities aimed at exposing youths to careers, and it offered training in job-seeking and keeping skills.

Individual Treatment

The other half of the program resources were used to implement an intensive program of services to students identified as in need of special academic or affective assistance. About 20% of the students in each school were identified as eligible for program services on the basis of low school achievement, poor attendance, disciplinary problems and teacher referrals. Half of those eligible were randomly selected to receive program services, and the other half served as a control group. Using diagnostic information and interviews with the students, program specialists developed treatment objectives for each target student and prescribed an appropriate program of academic remediation and counseling. Progress towards the treatment goals was frequently assessed and the treatment programs were modified as needed. Implementation standards for the direct service component called for three tutoring or counseling contacts with each target student each month. Two persons shared the responsibility for implementing the program: One specialized in counseling, the other specialized in academics.

Implementation

Implementation standards were developed for every program component and were monitored monthly by an on-site evaluator. Meeting minutes, agendas, logs, student folders and interviews with program staff were summarized and coded.

Records of the frequency, nature and duration of staff contacts with students were also captured in a management information system. According to these sources, the program generally did not meet 100% of its standards for implementation. The organizational change components met between 50 and 70% of the standards during each of the two years that they were monitored. Of the organizational-level change components, the school-wide academic interventions were most faithfully implemented, followed by the team and review and revision structures and the school-wide affective programs. The career component was least well-implemented in both years.

Monitoring showed that the services to target students were initially weak, but by the second year of implementation these services were considerably strengthened. The average number of contacts per target student for the first year ranged from 3.81 to 13.67, with an average of 6.86--less than one contact per month for the average target student. The intensity of this component nearly tripled during the following year: The average number of contacts ranged from 7.56 to 32.86, with an average of 17.89--about two contacts per month. Only one school met the standard of three contacts per month.

Program Effects

Because a true experiment was implemented to evaluate the target student program, we are able to separate the effects of the treatment program from those of the organizational change components. In the time I have left, I will summarize effects of the program as a whole on changes in school averages from Spring, 1981, to Spring, 1982, for the high schools and Spring, 1983, for the middle schools. (A reorganization of the high schools in Fall, 1982 makes it impossible to separate program effects from the effects of the reorganization for the final year of the program.) I will compare these results to results from comparisons of treatment and control students in the direct service component of the program.

Data

Data come from three sources: (a) Surveys of students and teachers using an extended version of the Effective Schools Battery administered in PATHE and comparison schools in the springs of 1981, 1982, and 1983; (b) School records; and (c) police records. The survey samples consisted of all teachers in the PATHE and comparison schools, and a random sample of approximately 200 students in each of the PATHE and comparison schools drawn each of the three survey years. All randomly assigned target and control students were included in the survey sample with a probability of 1.0.

School averages are obtained by weighting each response by the inverse of its sampling probability.

Evaluation design

The evaluation design is discussed in detail elsewhere (D. Gottfredson, 1983). Briefly, a post-randomization check confirmed that the experimental and control groups for the individual-level experiment were equivalent prior to treatment. The evaluation of the school-wide components of the program depends upon comparison of year to year changes in school averages for the PATHE schools and two comparison schools selected from the non-PATHE schools in the Charleston County School District. They were selected to resemble the program schools as closely as possible.

Measures

Several measures of school disorder and its correlates are examined. For the school level analysis, all outcomes are taken from the teacher and student surveys. Survey measures are also used for the treatment-control student comparisons, but measures from school and police records are examined as well. Survey measures are discussed elsewhere (Gottfredson, in press; Gottfredson, Ogawa, Rickert & Gottfredson, 1982; Gottfredson, Gottfredson & Cook, 1983) and will not be reviewed here. The measures of school disruption are: Student self-reports of Serious Delinquency, Drug

Use, Suspensions, and Victimization; teacher self-reports of Victimization, student and teacher reports of Safety in their schools; and (for treatment and control student comparisons only) number of suspensions and number of times the student was referred to the office for minor and major disciplinary offenses--all taken from school records--and number of arrests taken from police records.

The PATHE program was designed to reduce delinquency by altering certain precursors of delinquency and school disruption. Measures of these intermediate variables are also examined. The risk factors for individual delinquency targeted by the program were consistent with those implied by Hirschi's (1969) social control theory and Gold's (1978) theory of self-esteem and school performance.

The intermediate variables targeted by the school change component were consistent with empirical findings (Gottfredson and Gottfredson, in press) that implied that students' perceptions of the fairness and clarity of school rules and high levels of teacher-administration cooperation are causally related to school disruption. Measures of teacher morale and teachers' perceptions of the extent to which the faculty and administration in their school engages in planning and innovative actions are also examined because they are a central focus of the organizational level PATHE components.

The measures of intermediate variables are as follows: Commitment to conventional goals is measured by school attendance, academic achievement, dropout, and student self-reports of educational expectations. Academic achievement and dropout measures are taken from school records and are available only for the target-control student comparisons, and the attendance measure comes from school records for the target-control analysis and from survey self-reports for the school-level analysis. Attachment to prosocial others is measured by an attachment to school and an alienation scale, and belief in rules and involvement in constructive activities are measured by survey scales developed to measure those constructs.

Results

Changes in school means from year to year were examined (see D. Gottfredson, 1983 for details of the statistical methods). The two figures on page one of your hand-out summarize the findings for the seven PATHE and two comparison schools on measures of school disruption and the risk factors for school disruption. The first figure provides persuasive evidence that the program succeeded at decreasing school disruption. The program schools improved on about 90% of the measures of school disruption, while the comparison schools improved only on 60 and 28%. Six of the seven program schools experienced improvements on one or more of

the disruption measures that reached conventional statistical significance levels. Neither of the comparison schools' improvements reached this level.

The results for the risk factors are also promising. The program schools improved on 74% of there measures. The comparison schools improved on only 36 and 27%. As with the measures of school disruption, the program school changes were more likely to reach statistical significance than the comparison school changes.

The figure on page two of your handout summarizes the treatment and control group comparisons for the direct service component. The figure shows the percentage of disruption and risk factor treatment-control group comparisons which favored the treatment group. The direct service component of the program was not as effective as the organizational-level change component. This component of the program appears to have been somewhat more effective with younger students--42% and 64% of the disruption and risk-factor outcomes, respectively, favored the target students in the middle schools. In the high schools, only 26 and 45% of the same comparisons favored the target students.

Although the remedial treatment component appears relatively ineffective, some results suggest that it has potential. Implementation data show that the middle schools implemented the target student services in stronger form

than did the high schools. During 1982-83, for example, target students in the middle schools were contacted an average of 24 times. High school target students were seen only half as often. It is promising, then, that a higher percentage of differences favoring the target group is evident for the middle schools. Furthermore, the only school that met program standards for target student services (MS 2 on the figures) had by far the most favorable treatment-control comparisons of any school. 69% of the disruption outcomes and 70% of the risk-factor outcomes favored the treatment students. This school is also the only school whose treatment students scored significantly lower on a measure of self-reported delinquency, and it also had a significant positive effect on school dropout.

The remedial treatment component had its largest effect on academic outcomes. Target students' school grades and standardized achievement test scores were significantly higher than control students'. Dropout was also significantly affected in two of the PATHE middle schools. It is possible that these program effects on educational outcomes will have a delayed effect on delinquency, but the evidence available suggests that the services to target students, as implemented in all but one school, were generally ineffective for reducing the delinquency. All delinquency risk factors except for commitment to educational goals appear also not to have been affected by the program. Results sug-

gest, however, that strengthening the intensity of the program would produce positive effects.

Conclusion

Results from the evaluation of a large-scale educational intervention designed to prevent school disruption suggest that altering the school organization is a more effective approach to delinquency prevention than treating individuals. Involving the school staff, students and community members in planning and implementing change (as long as the change process is well-managed), using information to identify weaknesses and focusing resources on those weaknesses, retraining school staff, making changes to the curriculum and discipline procedures in the school taken together can lead to reductions in school disruption. Using roughly the same level of resources to provide what, for a typical school system, is intensive tutoring and counseling services of high quality appears not to have reduced delinquency or its risk factors. This is not to say that carefully designed and implemented treatment programs cannot work to reduce school disruption. Indeed, research has demonstrated some treatment strategies to be effective (Alexander & Parsons, 1973; Patterson, McNeal, Hawkins, & Phelps, 1967). The present results suggest, however, that the kind of treatment program most likely to be implemented by the typical school system is likely to be less

Environmental change

effective at reducing school disorder than an organizational-level change program requiring roughly the same level of resources.

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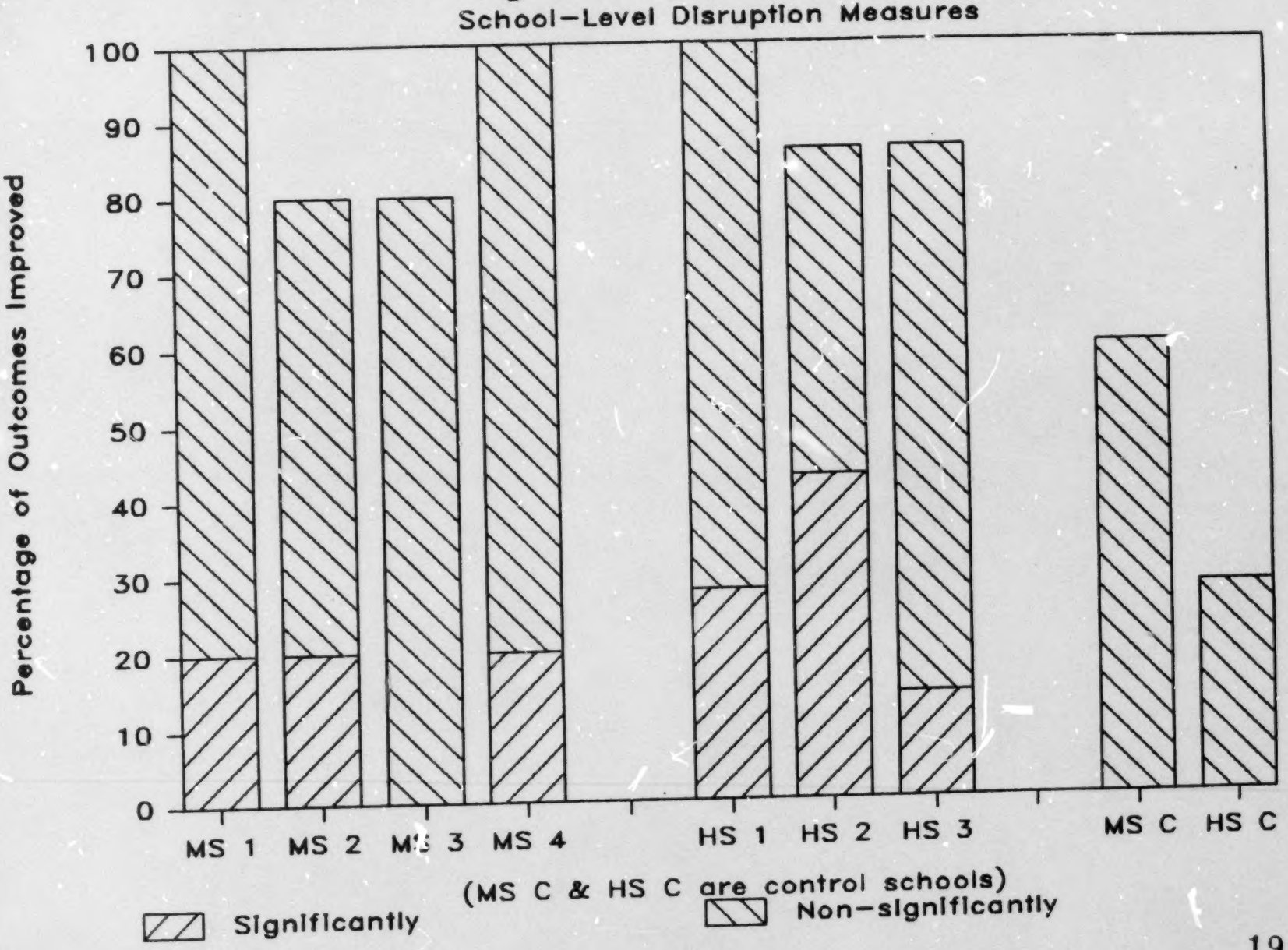
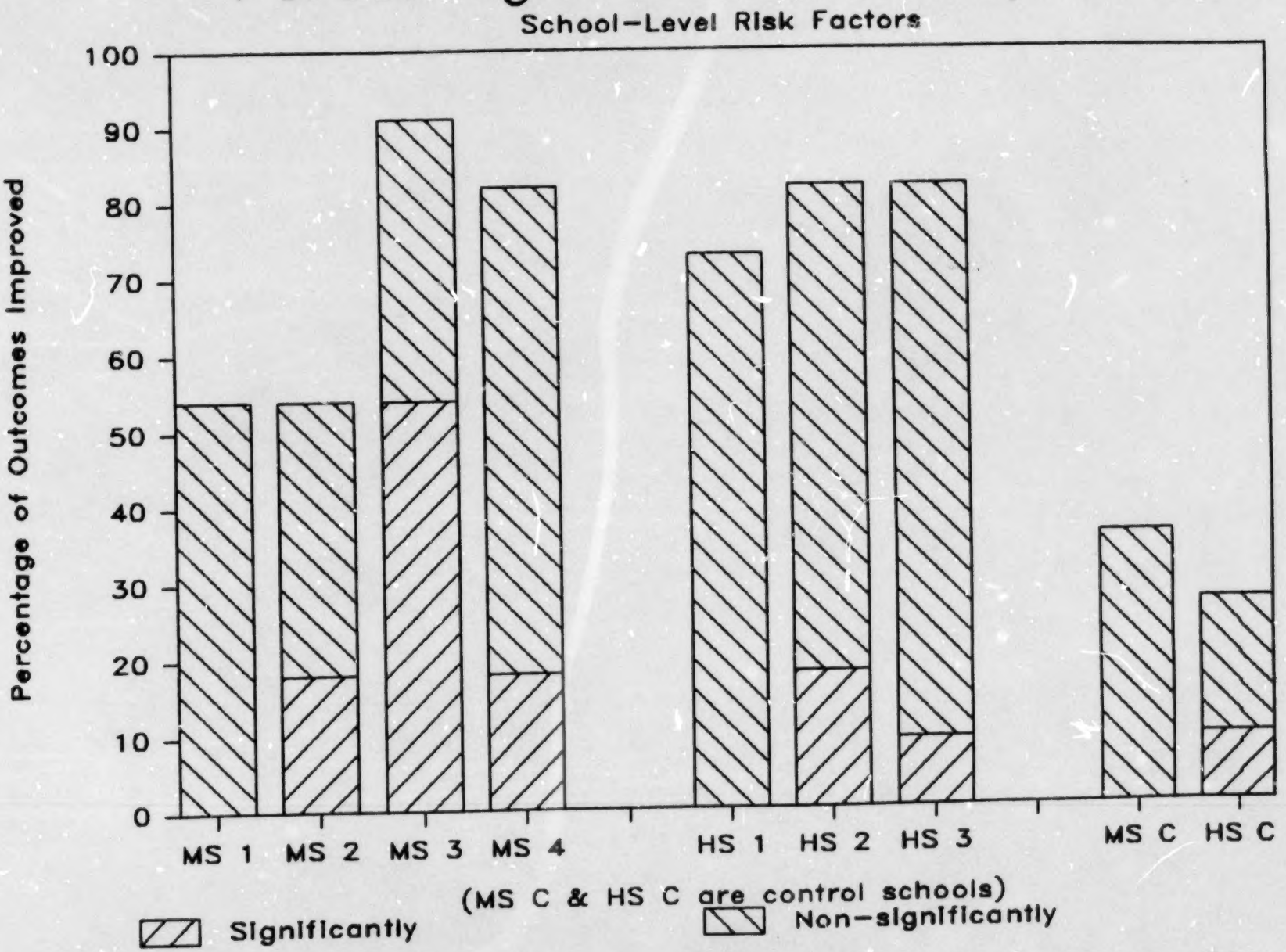
Percentage Outcomes Improved



Percentage Outcomes Improved



Percentage Outcomes Favoring Treatment